

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

6460.2  
CHG 21

8/22/97

ELECTRONIC EQUIPMENT MODIFICATION HANDBOOK - NEXT GENERATION WEATHER  
SUBJ: RADAR (NEXRAD)

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CHAPTER 21. EXPANSION OF NARROWBAND COMMUNICATION PORTS  
IN THE RADAR PRODUCT GENERATION'S (RPG)  
COMMUNICATION CABINET FOR CONNECTION OF  
ADVANCED WEATHER INTERACTIVE PROCESSING  
SYSTEM (AWIPS).

1. **PURPOSE.** This modification expands the narrowband communication ports at selected RPG sites. This directive implements Engineering Change Proposal (ECP) F0009-R03C1, Retrofit of Narrowband Communication Ports in the Radar Product Generation Group (RPG).
2. **DISTRIBUTION.** This directive is distributed to selected offices and services within Washington headquarters, the William J. Hughes Technical Center, the Mike Monroney Aeronautical Center, regional Airway Facilities divisions, and Airway Facilities field offices having the following facilities/equipment: NXRAD.
3. **WITHDRAWALS.** None.
4. **REFERENCES.** None.
5. **BACKGROUND.** This expansion of narrowband communication ports at selected sites involves adding a combination of Codex Modulus 21 modem expansion racks, Codex 3263 dedicated modems, Codex 3262 dedicated modems, Formation Versa Module Eurocard (VME) narrowband cards, and Datapatch RJ11-12-4 patch panels.
6. **APPLICATION.** This modification applies to the following FAA WSR-88D RPG sites. Each site will be modified using the required quantity of kits. Sites, number, and types of kits required are listed below:

<u>Site</u>	<u>Quantity</u>	<u>Type</u>	<u>Site</u>	<u>Quantity</u>	<u>Type</u>
Anchorage, AK	2 each	A	South Shore, HI	2 each	A
Bethel, AK	2 each	A	Middleton Island, AK	2 each	A
Fairbanks, AK	2 each	A	Nome, AK	2 each	A
Molokai, HI	2 each	A	San Juan, PR	2 each	A
Molokai, HI	2 each	G	Sitka, AK	2 each	A
King Salmon, AK	2 each	A	South Kauai, HI	2 each	A
Kohala, HI	2 each	A			

7. **MATERIALS REQUIRED.** The following material is required to modify each unit and is available in kit form, NSN 6660-K3-117-522A and NSN 660-K3-117-522G, consisting of the following: (FAA sites require kits A and/or G.)

<u>Description</u>	<u>NSN</u>	<u>Part No.</u>	<u>Quantity</u>
<u>Kit A</u>	6660-K3-117-522A		
a. Modem, Data (dedicated)	5895-01-377-7105	1219739-202	1 each
b. Cable Assembly	5995-01-387-3817	1221203-530	1 each
c. Label, cable (sheet)	7690-01-049-1770	SLSH-2015-5	1 each
d. Tiewraps	5975-00-156-3253	MS3367-2-9	1 each
e. Arrester, electrical (surge protector)	5920-01-390-1340	COHP-150	2 each
<u>Kit G</u>	6660-K3-117-522G		
a. Patch Panel, (dedicated)	5805-01-358-4488	1213826-201	1 each
b. Cable Assembly, (22/122 W22)	5995-01-440-7556	1214790-304	1 each
c. Cable Assembly, (22/122 W21)	5995-01-407-2894	1214789-307	1 each
d. Locator Plate, (A13)	9905-01-440-7558	1214845-213	1 each
e. Cable Assembly, (W230)	5995-01-440-7552	1214868-303	1 each
f. Screw (12-24x1/2)	5305-00-059-3657	MS51958-61	8 each
g. Washer, lock	5310-00-933-8120	MS35338-138	8 each
h. Washer, flat	5310-00-619-1148	MS15795-808	8 each

8. **SOURCE OF MATERIALS.** Kits will be requisitioned by the Operational Support Facility (OSF) Logistics Section and shipped, at no cost to the site, from:

National Logistics Supply Center (NLSC)  
1510 E. Bannister Road  
Kansas City, MO 64131

9. **SPECIAL TOOLS AND TEST EQUIPMENT REQUIRED.** None.

10. **MODIFICATION TO BE PERFORMED BY.** Field maintenance personnel or as determined by the regional Airway Facilities division.

11. **WHEN MODIFICATION IS TO BE PERFORMED.** Not later than 60 days after receipt of this directive and kit(s).

12. **ESTIMATED TIME REQUIRED.** A total of 4.0 man-hours is required per channel to accomplish this modification. The personnel performing this task will have maintenance and test experience with the WSR-88D RPG. Two technicians are required for this procedure.

13. **DISPOSITION OF SURPLUS PARTS.** None.

14. **MODIFICATION PROCEDURES.** See attachment 1, RPG Port Expansion Procedures, attachment 2, RPG Modem Test Procedures, and attachment 3, Application Software Changes to Expansion Ports at the RPG. Perform these procedures on both channels.

NOTE: Coordinate any shutdown with the appropriate air traffic control personnel.

15. **TEST AFTER MODIFICATION.** Test procedures are included in attachment 1, attachment 2, and attachment 3.

16. **RESULT OF MODIFICATION.** WSR-88D products supplied to the end user remain the same. This modification activates communication ports for dedicated telephone service to enable the AWIPS system to interface with the WSR-88D for the purpose of ingesting radar data.

17. **CHANGES TO INSTRUCTION BOOK.** None.

18. **CHANGES TO INSTALLATION DRAWINGS.** None.

19. **CHANGES TO RECORDED DATA.** Enter this directive number, date, and chapter number on the appropriate FAA Form 6032-1, Airway Facilities Modification Record. Also, complete the attached form, attachment 4, and forward to:

System Support Branch, Logistics Section  
WSR-88D Operational Support Facility  
3200 Marshall Ave., Suite 101  
Norman, Oklahoma 73072-8028

Or e-mail information to:

khare@osf.noaa.gov

20. **CHANGES TO TABLE OF CONTENTS.** This chapter will be included in the next revision to the table of contents for Order 6460.2.

21. **RECOMMENDATIONS FOR CHANGES.** Forward any recommendations for changes to this directive through normal channels to the National Airway Systems Engineering Division, AOS-200, Operational Support.

**Signed**

George W. Terrell  
Program Director for Operational Support

4 Attachments